
INDIANA

Epidemiology

NEWSLETTER



Epidemiology Resource Center
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Indianapolis, IN 46204
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ISDH Names Two New Directors

Pam Pontones, MA
ISDH Field Epidemiology Director

The Indiana State Department of Health (ISDH) has named new directors for two program areas. **Roland Gamache** will direct the state Health Data Center starting August 1, and **Michael Hurst** returned to the ISDH as the Director of the Public Health Preparedness and Emergency Response Division on July 12.

The Health Data Center is an information resource compiling data from various ISDH program areas and private partners. The Center will serve as an easy-to-use, integrated electronic environment that provides ISDH employees and others with immediate access to accurate, timely health information they need to work more effectively and efficiently. This information system will be used to drive state programs to improve the health of Indiana citizens. Although needs and needs groups are still being defined, Gamache stressed that the Health Data Center is an informational store, not a data store. "Data are points in time, but information is knowledge that we can use," he explained.

The types of data collected are based on recent Institute of Medicine reports and the ISDH Chronic Disease Management System. Health data may be provided by individuals, health care providers, facilities, and communities. Benefits of the Health Data Center include developing better ways of helping communities manage chronic diseases and other health issues, and linking surveillance data gathered from different programs, such as Epidemiology and Public Health Preparedness. Providing feedback based on information from the Health Data Center to partners is also critical. Intervention can then be targeted to specific groups to ensure the greatest benefit. "We want data that are meaningful and valuable to the community," Gamache said.

Gamache, who has a strong background in the collection, analysis, and management of data, is looking forward to his new position and spending more time on the Health Data Center project. "It's a great fit."

Hurst is also excited to return to the ISDH as director of the Public Health Preparedness and Emergency Response Division (PHPERD). He served as the ISDH Chief Legal Counsel from January through November 2001, then as Deputy Health Commissioner from November 2001 until July 2003. He left the ISDH to serve as

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Governor O'Bannon's Deputy Counsel from August 2003 until O'Bannon's death. Most recently he served in Governor Kernan's administration as the Public Records Access Counselor. When the PHERD Director opportunity arose, Hurst asked to return to the ISDH. "There is important work at ISDH that is not finished yet, and I want to move that along," he explained.

One big aspect of that work is simplifying the delivery of services from the state level to the local level. One way to do this is streamlining the use of money and resources at the local level. Hurst said that having so many existing layers of scrutiny and process makes the allocation of money and resources difficult. Another goal is to facilitate relationships at the state level to all local levels, since that is where the primary response to a public health emergency will take place.

To accomplish these objectives, Hurst will draw on his knowledge of the ISDH, communication skills, and a straightforward approach. "Communication is so important. I would like to help with the really hard work of trying to implement really great ideas public health people have on the local level. It's much harder [in reality] than on paper."

Other staffing changes have occurred at the PHERD. **Elizabeth Hibler**, formerly the Public Health Coordinator for Public Health Preparedness District 4, became the Program Director for Bioterrorism/Public Health Preparedness Grant Programs on July 12. **Mary Ann Hurrell**, formerly of the ISDH Chronic Disease Program, joined the PHERD on June 21 as a Grants Coordinator.

Salmonella and Reptiles

Jim Howell, DVM
Veterinary Epidemiologist

As of June 25, 14 *Salmonella* infections linked with exposures to reptiles or amphibians have been reported to the Indiana State Department of Health during 2004. Sixty-four percent of the cases have occurred in children ages 10 and under. Twenty-one percent of the cases occurred in children **less than 3 months of age**. Five cases had exposures to turtles, seven to lizards, three to snakes, and one to a salamander (some cases were exposed to more than one species). While the associations were not proven to be the source of infection, the history of the exposures direct handling of the animals, the animals' access to food preparation areas or other surfaces that could have been contaminated with the animals' fecal material suggests that animals may have been the source of infection.



Salmonella bacteria are spread by contact with feces of infected persons and animals, including poultry, cattle, swine and reptiles. Symptoms appear approximately 6 to 72 hours after exposure and include diarrhea; stomach cramps; fever; and, sometimes, bloody stools. Rarely, systemic infections affecting major body organs occur and can cause death.

At least 35 *Salmonella* serotypes have been associated with reptiles. The fact that reptiles pose a *Salmonella* infection threat to humans was recognized as far back as 1963 when turtle-associated salmonellosis of humans was first identified. Because of this association with *Salmonella*, the ban on the sale of pet turtles (see sidebar article in the June 2004 issue of the *Indiana Epidemiology Newsletter*) was enacted. A 77% reduction in human cases of *Salmonella* infections associated with turtles and an 18% reduction in *Salmonella* infections in children ages 1 to 9 occurred after implementation of the ban, thus illustrating the impact of turtle-associated salmonellosis.

Since the pet turtle bans began, transmission of *Salmonella* from other reptiles (pet iguanas, snakes, and lizards) has also been documented. Reptiles can be asymptomatic carriers of *Salmonella* and have been found to be carriers when captured in the wild. Captured lizards have had asymptomatic carriage rates up to 77%. Opportunities for transmission between reptiles and increasing the carriage rate can occur at several points where reptiles are collected for the pet trade, such as reptile breeding farms.

Reptiles are popular pets. Over two million households in the U.S. own iguanas, but often their owners do not recognize the associated risk. Transmission of *Salmonella* from pets to humans can occur from handling the animal or from allowing the animal to roam freely about the home with fecally contaminated feet depositing *Salmonella* organisms on surfaces that humans, especially children, may handle.

Recognizing the risk of *Salmonella* transmission and the impossibility of ensuring the elimination of *Salmonella* from reptile intestinal tracks, the Association of Reptilian and Amphibian Veterinarians has developed the following guidelines for owners of pet reptiles:

- Always wash your hands with hot soapy water after handling reptiles, reptile cases and equipment, and stool from reptiles.
- Do not allow reptiles to have access to the kitchen, dining room, or any other area where food is prepared.
- Do not allow reptiles to have access to bathroom sinks and bathtubs or to any area where infants are bathed.
- Wash hands after touching areas where reptiles are allowed to roam freely.
- Do not eat, drink, or smoke while handling reptiles, reptile cages, or equipment.
- Do not kiss reptiles or share food or drink with them.
- Do not use the kitchen sink, kitchen counter, bathroom sink or bathtub to bathe reptiles or to clean their cages and equipment. A dedicated plastic tub or other container should be purchased for these purposes. Dispose of any associated wastewater and fecal material in the toilet.
- Reptile owners should discuss with their veterinarian the proper diet and environment to maintain the reptile's health. Healthy reptiles are less likely to shed *Salmonella*.

The U.S. Centers for Disease Control and Prevention offers these additional recommendations on reptiles as pets:

- Reptiles should not be kept in households with children under 1 year of age, and children less than 5 years of age should not have contact with reptiles.
- Daycare facilities should not maintain reptiles as pets or exhibits.
- Immunocompromised individuals should not have reptiles as pets.

The risk of contracting *Salmonella* can be greatly reduced by following the above guidelines. Individuals who have questions concerning their health and the risk of salmonellosis should consult their physician. Individuals with questions concerning the management of their pet reptiles should consult their veterinarian.

References:

1. Ackman, Drabkin, Birkhead, Cieslak; Reptile-associated salmonellosis in New York State; Pediatric Infectious Disease Journal, 1995; 955-9
 2. Association of Reptilian and Amphibian Veterinarians Client Education Handout; Salmonella bacteria and reptiles; JAVMA, page 52, Vol 213, No.1, July 1, 1998
 3. Chiodini, Sundberg, Salmonellosis in Reptiles: A Review; American Journal Epidemiology, page 494-499, Vol.113. No. 5, 1981
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OUTBREAK SPOTLIGHT....

Outbreak Spotlight is a regularly occurring feature in the Indiana Epidemiology Newsletter highlighting various aspects of outbreak investigation. The event described below stresses the importance of aggressive case investigation and distinction from other circulating illnesses and the prompt implementation of control measures in institutional settings.

Raising the Red Flag



Thomas Duszynski
District 2 Field Epidemiologist

In this day of bioterrorism preparedness, the emergence of a vesicular rash should raise a red flag. Recently, a northern Indiana local health department did raise the red flag. The public health nurse contacted the ISDH District 2 field epidemiologist to investigate a vesicular rash on an inmate in the county jail.

The public health nurse had seen an inmate in the county jail who had numerous vesicles on her legs. The vesicles were present in different stages, from newly emerging to ruptured and draining. There was significant swelling in one leg, and the person complained of fever, headache, and pain associated with the swollen joints. A second inmate was identified having a large open wound on his elbow with significant swelling, and he also complained of fever and pain.

The public health nurse and the District 2 field epidemiologist interviewed the inmates at the jail to determine if they were cases of Fifth's Disease currently circulating in the community or to determine if a different outbreak was occurring. The first inmate with the vesicular rash on her legs could barely walk due to what was described as significant pain in an ankle where there was a significant amount of edema and erythema. There were numerous vesicles, some bandaged due to draining. The patient also complained of itching due to the vesicles, fever, and loss of sleep. This inmate stated that she had been incarcerated for the past five months and had been in solitary confinement for the past week. The rash had begun to appear about five days before the interview.

The second patient presented with a symmetrical wound about the size of a quarter on the elbow. The forearm was severely swollen from what appeared to be a grossly infected wound. This inmate also complained of fever, itching, difficulty sleeping, and a significant amount of pain. This inmate indicated that he was treated about seven months earlier for a staphylococcal infection in that same arm. This inmate had also been incarcerated for five months and his condition has just developed in the past week.

During the visit, the guards indicated that there was a third inmate with a similar rash. During the interview, this third inmate stated that she had several vesicles but "that they were no big deal". The inmate indicated that she had experienced these before and described them as "meth sores". This inmate did not report any other symptoms but did admit to the use of methamphetamines. The other two inmates also admitted to the use of methamphetamines.

Since the vesicles were occurring in multiple stages, including some that were open and draining, the decision was made to culture at least two of the inmates. The local health officer was notified of interview findings and ordered cultures performed on the two initial inmates. The affected inmates were placed in isolation until a diagnosis could be made. The jail staff members also implemented active surveillance to identify additional cases. If an additional case was found, they would notify the public health nurse immediately and the nurse would visit the jail to investigate the case.

The actual source of infection was unclear. It did not appear to be related to the Fifth's Disease infection that was circulating in the community. There were no links between the three cases other than they were all incarcerated in the same county jail prior to infection and all admitted to using methamphetamines prior to incarceration. Males and females are segregated within the jail; however, they all have access to common rooms at different times. The first two inmates were treated with Cephalexin for the infection and Tylenol for pain management.

The laboratory cultures tested positive for Methicillin-Resistant *Staphylococcus aureus* (MRSA). The laboratory results also indicated levels of susceptibility and resistance to various antibiotics, which in turn proved useful in treatment. The results also suggested that the strain was commonly referred to as community-associated MRSA. This strain can be associated with persons without any specific risk factors. However, persons with certain risk factors, such as weakened immune systems or intravenous drug use, may be more susceptible to acquiring the infection.

The public health nurse, upon getting the results, went back to the jail to educate jail staff and inmates. This included the need for universal precautions when dealing with inmates, with special attention given to hand washing. Inmates were also educated about MRSA, hand washing, personal hygiene, and ways to help identify any other potential cases. Recommendations from the National Institute of Corrections for the Management of MRSA were also provided to jail staff. The cells were thoroughly disinfected, as were the common rooms. Laundry from symptomatic inmates was washed separately and carefully handled so as not to infect housekeeping staff. Any inmates identified as having open wounds, a rash, or vesicles were isolated until evaluated by the public health nurse or local health officer.

The initial inmates were released from the jail for hospitalization and aggressive treatment. Several attempts were made to obtain past medical records on the second inmate who admitted to being treated seven months earlier for a staphylococcal infection to determine the past treatment course. This was unsuccessful.

This case offered many challenges since there was a concurrent outbreak investigation taking place in the same county. The cooperation of the jail staff and inmates was crucial. There was some resistance to obtaining information from the inmates because they perceived the investigation as possibly leading to future lawsuits or charges. This was especially difficult since all interviews had to take place with a guard present to maintain HIPPA compliance; interviews were conducted with a guard posted just outside the interview room who could be summoned immediately if needed.

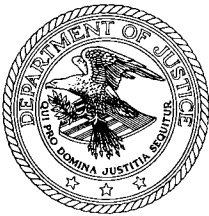
The ISDH and the Indiana Department of Correction is actively addressing the problem of MRSA infections in correctional settings. Please watch for additional guidance on this issue in future editions of the *Indiana Epidemiology Newsletter*.



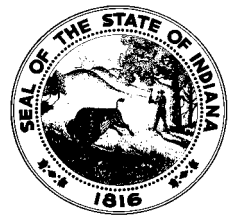
Training Room

Foodborne Illness Investigation Training A Big Success

Over 240 participants from across Indiana attended the recent Foodborne Illness Investigation trainings presented by the ISDH Food Protection Program and Epidemiology Resource Center. Attendees represented local health departments, hospitals, universities, the Indiana Public Health Association (IPHA), and the ISDH. Of the 94 Indiana local health departments, 78 (83%) were represented. All participants will receive a certificate of attendance in the mail. Heather Vaughan, Lee Bray, and Pam Pontones would like to sincerely thank all of those who participated.



Anti-Terrorism Advisory Council
Indiana State Department of Health
Counter-Terrorism and Security Council
State Emergency Management Agency



Bio-Terrorism: Working Together Is The Antidote

(Regional 1-Day Forensic Epidemiology Training Sessions)

The United States Attorney's Office for the Southern District of Indiana, the United States Attorney's Office for the Northern District of Indiana, the Anti-Terrorism Advisory Council, Indiana State Department of Health, Counter-Terrorism and Security Council, and State Emergency Management Agency are hosting several one-day training sessions entitled ***Bio-Terrorism: Working Together Is The Antidote*** over the summer of 2004. The training will be held at various locations based on the ten ISDH/SEMA districts. Attendees are encouraged to attend the session scheduled for their ISDH/SEMA district, however attendees may request any location as long as space is available. (See the enclosed map of the ISDH/SEMA districts). ***Registration will begin at 7:30 AM and training starts at 8:30 AM each day, concluding at 4:30 PM (all times are local time for that location).***

This one-day course will bring together law enforcement, firefighters, emergency medical, emergency management, school officials, school nurses, elected officials, public health officials, hospital and community health center personnel, public information officers, and coroners so that they may better respond to a bio-terrorism or other public health emergency in their community.

Topics Include

*Epidemiology for Law Enforcement
Criminal Investigation for Health Professionals
Table Top Exercise Based on Real Life Events
And more...*

Registration

Registration forms should be returned to:

DISTRICTS 1, 2, 3

Frank Horvath

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Fax: (317) 226-0560

*For Districts 4, 5, 6, 7, 8, 9, and 10 there is a **\$20.00** per person fee for this training and pre-registration is required. A working lunch and break refreshments will be provided.*

For Districts 1, 2, and 3 there is no fee, however, no lunch or refreshments will be provided.

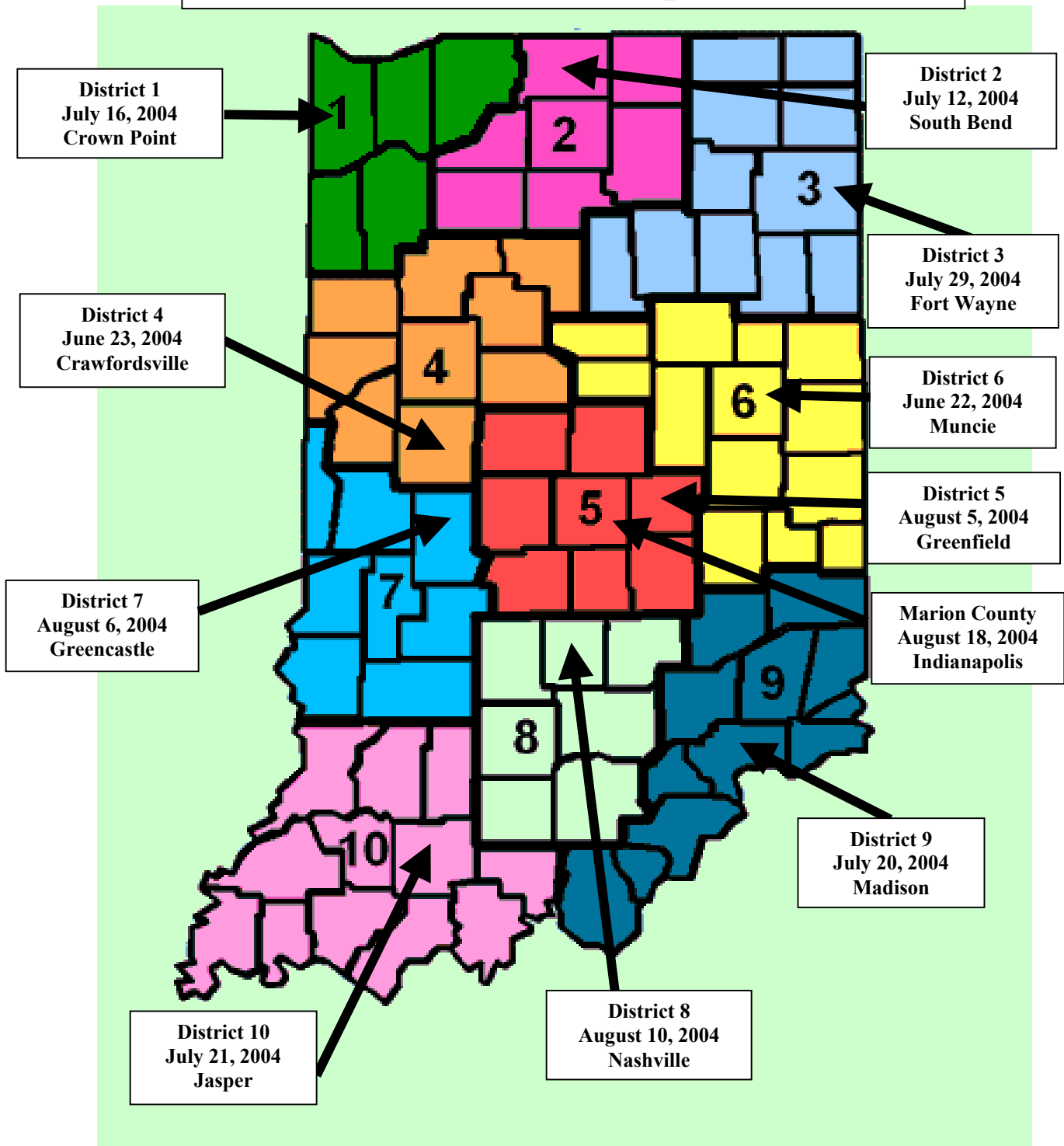
No lodging or per diem reimbursement is available for this training.

***Confirmation letters will be sent and will include
the training location information and map.***

There is a \$20 per person fee for this training and pre-registration is required. No lodging or per diem reimbursement is available for this training. Registrations must be completed and returned with payment or P.O.

There is no fee for the training in these locations, but pre-registration is required. No lunch will be provided at these locations. No lodging or per diem reimbursement is available for this training.

Joint SEMA / ISDH Homeland Security District Map



Indiana State Department of Health
Immunization Program
Presents:
“Child and Adolescent Immunizations from A to Z”

The ISDH Immunization Program and Health Educators are offering this free, one-day educational course on all aspects of immunization practices. Topics include:

- Principles of Vaccination
 - Overview of the immune system
 - Classification of vaccines
- An overview of Vaccine-Preventable Diseases
- General Recommendations on Immunization
 - Timing and spacing
 - Contraindications and precautions to vaccination
- Safe and Effective Vaccine Administration
 - Prior to administration
 - Administration
 - Documentation and reminder/recall
 - Adverse Events
- Safe Vaccine Storage and Handling
- Indiana Requirements
 - Schools
 - Day care/Head Start
 - Exemptions
- Tools to read Immunization Records
- Vaccine Misconceptions
 - MMR and autism
 - Thimerosal and mercury
 - Overloading the immune system
 - Influenza vaccine
- Reliable Resources

This course is designed for all immunization providers and staff. Presentation of this course takes six hours or can be customized to provide the components needed for your office or clinic staff. A training manual and certificate of attendance is provided to all attendees.

Courses are held throughout Indiana about four times per month (see schedule next page). All persons involved in immunizations are encouraged to attend a course in their area. Registration is required. To attend or schedule/host a course in your area, or for more information on “Child and Adolescent Immunizations from A to Z” and other immunization education opportunities, please contact Beverly Sheets by calling (317) 501-5722, or email hepbbev@aol.com

CALENDAR 2004 “IMMUNIZATIONS FROM A TO Z”

Sept.1, 2004 “Immunization A-Z” Lake Co., 9AM-3PM

Sept. 15, 2004 “Immunization A-Z” Indianapolis, Medical Mgmt. (full)

Sept. 17, 2004 “Immunization A-Z” ISDH Rice Auditorium, 9 AM-3PM

NOTE: NO COURSES WILL BE SCHEDULED FOR JULY AND AUGUST.

NOTE: THERE IS NO CHARGE FOR ANY OF THESE EVENTS.

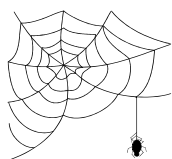
NOTE: YOU MUST REGISTER FOR THESE EVENTS. TRAINING MATERIALS ARE PROVIDED.

NOTE: NO county courses will be scheduled for July and August.

There is NO CHARGE for any of these events.

YOU MUST REGISTER for these events. Training materials are provided.

Contact Beverly Sheets at (317) 501-5722 or email hepbbev@aol.com for further information and to schedule “Immunizations From A to Z” and other immunization events in your area.



Wonderful Wide Web Sites

ISDH Data Reports Available

The ISDH Epidemiology Resource Center has the following data reports and the Indiana Epidemiology Newsletter available on the ISDH Web Page:

http://www.statehealth.in.gov/dataandstats/epidem/epinews_index.htm

Indiana Cancer Incidence Report (1990, 95, 96, 97)	Indiana Marriage Report (1995, 97, 98, 99, 2000)
Indiana Cancer Mortality Report (1990-94, 1992-96)	Indiana Mortality Report (1999, 2000, 2001, 2002)
Indiana Health Behavior Risk Factors (1995-96, 97, 98, 99, 2000, 2001, 2002)	Indiana Natality Report (1995, 96, 97, 98, 99, 2000, 2001, 2002)
Indiana Health Behavior Risk Factors (BRFSS) Newsletter	Indiana Induced Termination of Pregnancy Report (1998, 99, 2000)
Indiana Hospital Consumer Guide (1996)	Indiana Infectious Diseases Report (1997, 1998, 1999, 2000, 2001)
Public, Hospital Discharge Data (1999, 2000, 2001)	<i>Former</i> Indiana Report of Diseases of Public Health Interest (1996, 97, 98, 99)
Indiana Maternal & Child Health Outcomes & Performance Measures (1988-97, 1989-98, 1990-99, 1991-2000)	

HIV Disease Summary

Information as of June 30, 2004 (based on 2000 population of 6,080,485)

HIV - without AIDS to date:

320	New HIV cases from July 2003 thru June 2004	12-month incidence	5.26 cases/100,000
3,844	Total HIV-positive, alive and without AIDS on June 30, 2004	Point prevalence	63.22 cases/100,000

AIDS cases to date:

411	New AIDS cases from July 2003 thru June 2004	12-month incidence	6.76 cases/100,000
3,731	Total AIDS cases, alive on June 30, 2004	Point prevalence	61.37 cases/100,000
7,631	Total AIDS cases, cumulative (alive and dead)		

REPORTED CASES of selected notifiable diseases

Disease	Cases Reported in June <i>MMWR</i> Week 23-26		Cumulative Cases Reported January - June <i>MMWR</i> Weeks 1-26	
	2003	2004	2003	2004
Campylobacteriosis	44	15	141	133
Chlamydia	1,284	1,180	8,508	8,835
<i>E. coli</i> O157:H7	10	2	25	12
Hepatitis A	6	4	26	21
Hepatitis B	3	3	13	16
Invasive Drug Resistant <i>S. pneumoniae</i> (DRSP)	4	12	86	88
Invasive pneumococcal (less than 5 years of age)	5	1	27	23
Gonorrhea	474	441	3,174	3,051
Legionellosis	3	2	9	11
Lyme Disease	1	1	9	11
Meningococcal, invasive	8	5	27	13
Pertussis	3	3	28	43
Rocky Mountain Spotted Fever	0	0	0	4
Salmonellosis	47	30	229	189
Shigellosis	14	34	65	92
Syphilis (Primary and Secondary)	4	5	23	26
Tuberculosis	14	14	65	69
Animal Rabies	0	1 (bat)	2 (bats)	4 (3 bats and 1 skunk)

For information on reporting of communicable diseases in Indiana, call the *ISDH* Epidemiology Resource Center at (317) 233-7665.

Indiana
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Newsletter

The *Indiana Epidemiology Newsletter* is published by the Indiana State Department of Health to provide epidemiologic information to Indiana health professionals and to the public health community.

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